LANL TA-54 Renewal Document:

Revision No.: Date:

3.0 June 2003

Supplement 2-1 **Secondary Containment Capacities**

Area L

csu	Structure	Length (Feet)	Width (Feet)	Depth (Feet)	Secondary Containment Surface Area (Square Feet		Secondary Containment Capacity (Gallons)	Structure Maximum Storage Capacity (Gallons)
Aboveground CSU Within the Fence								
	TA-54-58	30. 5	25	0.5	762	1	2,852	15,840
	TA-54-36	30 -8	30 -20	0.83 0.83	900 -160	740	4,595	13,200
	TA-54-35	29.5	24.5	0.66	723		3,568	15,840
	TA-54-68	22	8.1	0.56	178		750	1,760
	TA-54-69	22	8.1	0.56	178		750	1,760
	TA-54-70	22	8.1	0.56	178		750	1,760
	TA-54-32: Cells 1 & 6	26.5	13.5	1	358		2,676	
	TA-54-32: Cells 3 & 5	16.83	13.5	1	227		1,700	
	TA-54-32: Cells 2 & 4	13.5	11.17	1	151		1,128	17,160
	TA-54-39: Room 101	39	22.5	0.5	878		3,282	9,900
	TA-54-39: Containment Pad- Western Section	59.5	16	1	952		7,121	15,180
	TA-54-31: Sump 1	4	6	0.42	24		75	
	TA-54-31: Sump 2	4	6	0.42	24		75	
	TA-54-31: Sump 3	6	7	0.42	42		132	1,320
			5,415		29,454			

Document: <u>LANL TA-54 Renewal</u>
Revision No.: 3.0

Date:

June 2003

Supplement 2-1 (continued) Secondary Containment Capacities

Area G

Alea G										
csu	Structure	Length (Feet)	Width (Feet)	Depth (Feet)	Secondary Containment Surface Area (Square Feet)	Secondary Containment Capacity (Gallons)	Structure Maximum Storage Capacity (Gallons)			
Storage Domes 229, 230, 231, and 232 and pad	TA-54-230 (Sump)	See Note 1 for C	alculation Details	1.75	1,388	18,170				
	TA-54-230 (Curbed Area)		alculation Details	0.25	16,088	30,088	330,000			
		CSU To	tal:		17,476	48,258				
Storage Domes 49 and 224; Storage Sheds 144, 145, 146, 177, 1027, 1028, 1030, and 1041; and Pads 5, 8, & 7	TA-54-224 TA-54-144	See Note 3 for Calculation Details 6 5		0.46 0.535	5,566 30	19,153 120	95,040 330			
	TA-54-145	6	5	0.535	30	120	330			
	TA-54-146	6	5	0.535	30	120	330			
	TA-54-177	6	5	0.535	30	120	330			
	TA-54-1027	22	8.1	0.56	178	750	1,760			
	TA-54-1028	22	8.1	0.56	178	750	1,760			
	TA-54-1030	22	8.1	0.56	178	750	1,760			
	TA-54-1041	22	8.1	0.56	178	750	1,760			
		CSU To	tal:		6,398	22,633				

Notes:

- 1. Surface area for sump estimated by enlarging sump semicircle to 36 feet for the radius in all directions, which puts the center of the circle 9 feet west of the sump. The area of the circle was divided by two (for the semicircle) and then the additional 9 foot by 72 foot area (previously added to make the semicircle) was subtracted. Sump surface area: π (r)² with radius of 36 feet. Calculation is π (36)²/2 (9 x 72) = 1,388 square feet.
- 2. Surface area for curbed area estimated with following calculation: π (r)² with radius of 41 feet divided by two (for the semicircle) and then adding the 82-foot by 164-foot area. Calculation is π (41)²/2 + (82 x 164) = 16,088 square feet.
- 3. Surface area estimated with the following calculation: π (r)² with radius of 28.58 feet and then adding the 50-foot by 60-foot area. Calculation is π (28.58)² + (50 x 60) = 5.566 square feet.